



SERVICE MANUAL

TYPE: YS1031

éXcursion 2000

WEB ACCESS: <http://www.yorkville.com>

WORLD HEADQUARTERS CANADA

Yorkville Sound
550 Granite Court
Pickering, Ontario
L1W-3Y8 CANADA

Voice: (905) 837-8481
Fax: (905) 837-8746

U.S.A.

Yorkville Sound Inc.
4625 Witmer Industrial Estate
Niagara Falls, New York
14305 USA

Voice: (716) 297-2920
Fax: (716) 297-3689



Quality and Innovation Since 1963
Printed in Canada



IMPORTANT SAFETY INSTRUCTIONS



This lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

Ce symbole d'éclair avec tête de flèche dans un triangle équilatéral est prévu pour alerter l'utilisateur de la présence d'un « voltage dangereux » non-isolé à proximité de l'enceinte du produit qui pourrait être d'amplitude suffisante pour présenter un risque de choc électrique.



CAUTION AVIS

RISK OF ELECTRIC SHOCK
DO NOT OPEN

RISQUE DE CHOC ELECTRIQUE
NE PAS OUVRIR



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

S2125A

FOLLOW ALL INSTRUCTIONS

Instructions pertaining to a risk of fire, electric shock, or injury to a person

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK).

NO USER SERVICEABLE PARTS INSIDE.

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

SUIVEZ TOUTES LES INSTRUCTIONS

Instructions relatives au risque de feu, choc électrique, ou blessures aux personnes

AVIS: AFIN DE REDUIRE LES RISQUE DE CHOC ELECTRIQUE, N'ENLEVEZ PAS LE COUVERT (OU LE PANNEAU ARRIERE) NE CONTIENT AUCUNE PIECE

REPARABLE PAR L'UTILISATEUR.

CONSULTEZ UN TECHNICIEN QUALIFIE POUR L'ENTRETIEN

Read Instructions: The Owner's Manual should be read and understood before operation of your unit. Please, save these instructions for future reference and heed all warnings.

Clean only with dry cloth.

Packaging: Keep the box and packaging materials, in case the unit needs to be returned for service.

Warning: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. *Do not use this apparatus near water!*

Warning: When using electric products, basic precautions should always be followed, including the following:

Power Sources

Your unit should be connected to a power source only of the voltage specified in the owners manual or as marked on the unit. This unit has a polarized plug. Do not use with an extension cord or receptacle unless the plug can be fully inserted. Precautions should be taken so that the grounding scheme on the unit is not defeated. An apparatus with CLASS I construction shall be connected to a Mains socket outlet with a protective earthing ground. Where the MAINS plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.

Hazards

Do not place this product on an unstable cart, stand, tripod, bracket or table. The product may fall, causing serious personal injury and serious damage to the product. Use only with cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with the product. Follow the manufacturer's instructions when installing the product and use mounting accessories recommended by the manufacturer. Only use attachments/accessories specified by the manufacturer

Note: Prolonged use of headphones at a high volume may cause health damage on your ears.

The apparatus should not be exposed to dripping or splashing water; no objects filled with liquids should be placed on the apparatus.

Terminals marked with the "lightning bolt" are hazardous live; the external wiring connected to these terminals require installation by an instructed person or the use of ready made leads or cords.

Ensure that proper ventilation is provided around the appliance. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

No naked flame sources, such as lighted candles, should be placed on the apparatus.

Power Cord

Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet. The AC supply cord should be routed so that it is unlikely that it will be damaged. Protect the power cord from being walked on or pinched particularly at plugs. If the AC supply cord is damaged DO NOT OPERATE THE UNIT. To completely disconnect this apparatus from the AC Mains, disconnect the power supply cord plug from the AC receptacle. The mains plug of the power supply cord shall remain readily operable.

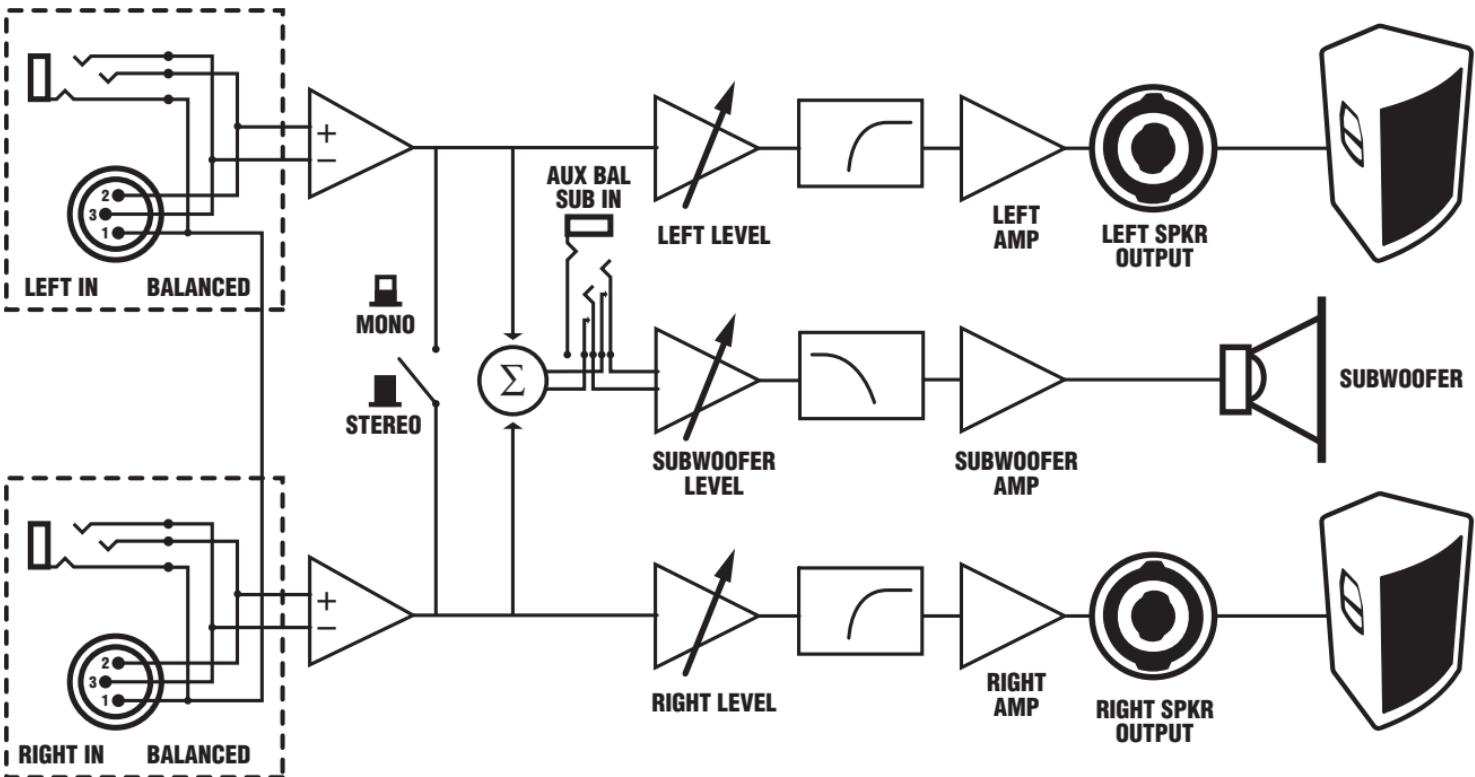
Unplug this apparatus during lightning storms or when unused for long periods of time.

Service

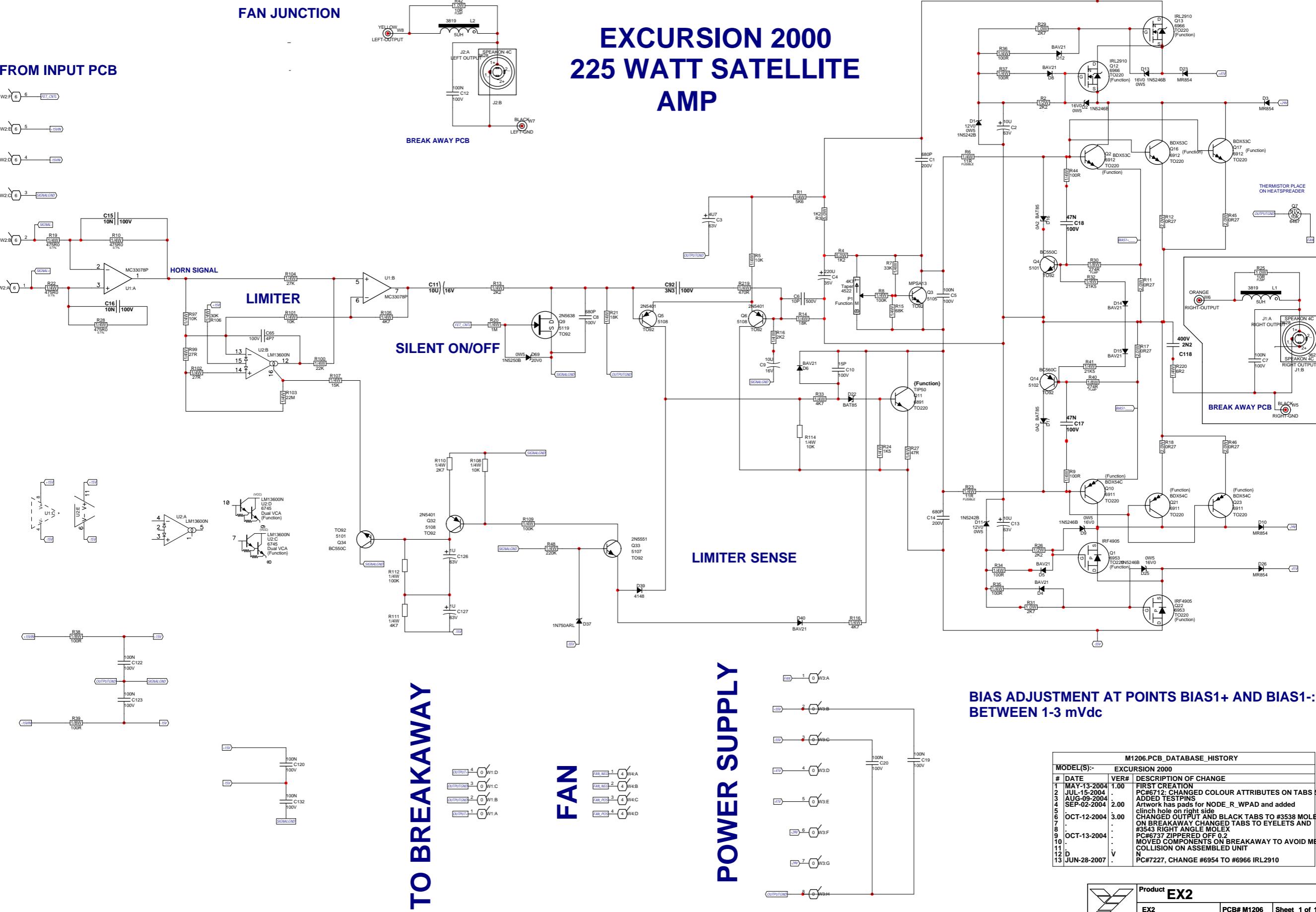
The unit should be serviced only by qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

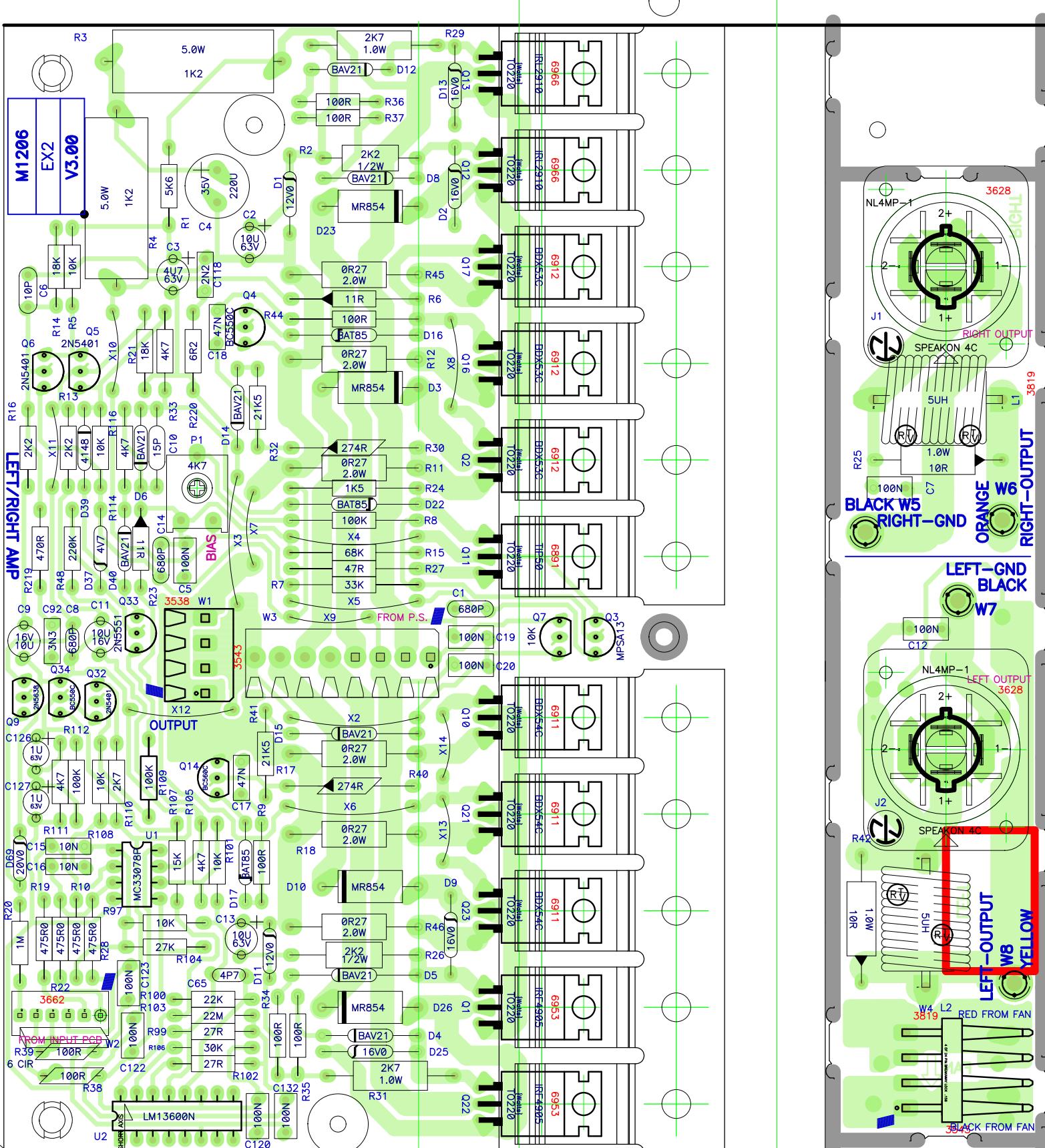


Le point d'exclamation à l'intérieur d'un triangle équilatéral est prévu pour alerter l'utilisateur de la présence d'instructions importantes dans la littérature accompagnant l'appareil en ce qui concerne l'opération et la maintenance de cet appareil.



EXCURSION 2000 225 WATT SATELLITE AMP





StepAndRepeat - X206.5Y100.0

SEE LAYOUT DOCUMENTATION

NOTE: THE DRILL PROGRAM WILL NOT HAVE STEP AND REPEATS. COPY AMP SECTION IN PCAD AND THEN EXPORT DRILL.

PRODUCTION NOTES:

- 1. Q7, Q3: ADD THERMAL COMPOUND BETWEEN THE TRANSISTORS AND HEATSINK**
- 2. BOARD ASSEMBLY: PLACE SILPAD TO COVER Q7 AND Q3 AS IN PICTURE**



- 3. PCBAS: BREAK BOARD OUT BEFORE TESTING**

DO NOT PLACE LEADS IN THIS REGION TO PREVENT MECHANICAL COLLISION IN ASSEMBLED UNIT

- 4. SOLDER FAN WIRES TO TEARDROP PADS**

BlankSize - 12500x8000
BlankSize - 12500x8000

USE 20Z COPPER

Pcb Mech M1206V3.00
Top Assy M1206V3.00

M1206V3.00

Botttom M1206V3.00
M1206V3.00

CLINCH
ORIGIN

INSERT
ORIGIN
VCD
LONG AXIS



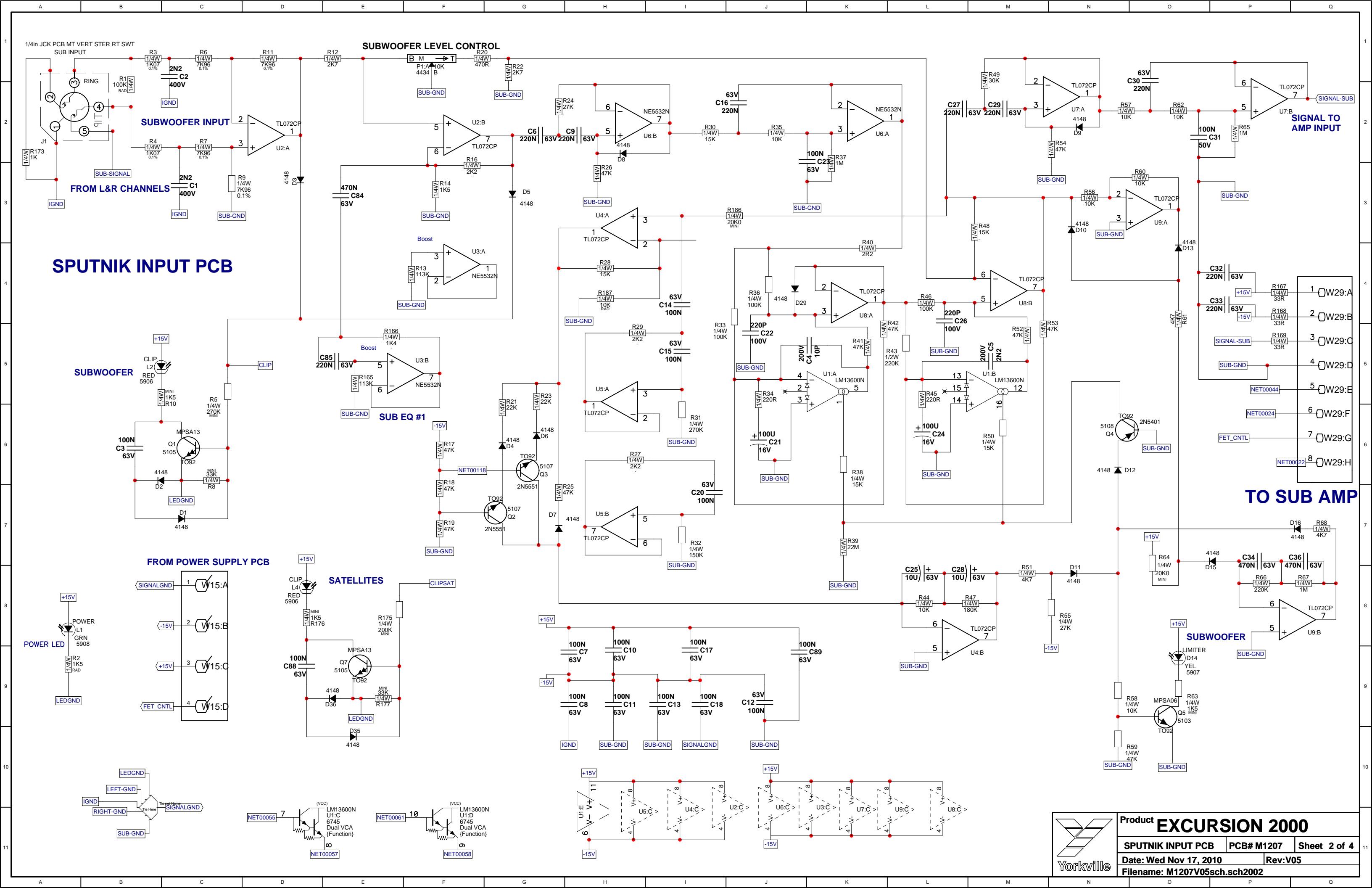
SEE LAYOUT DIAGRAM

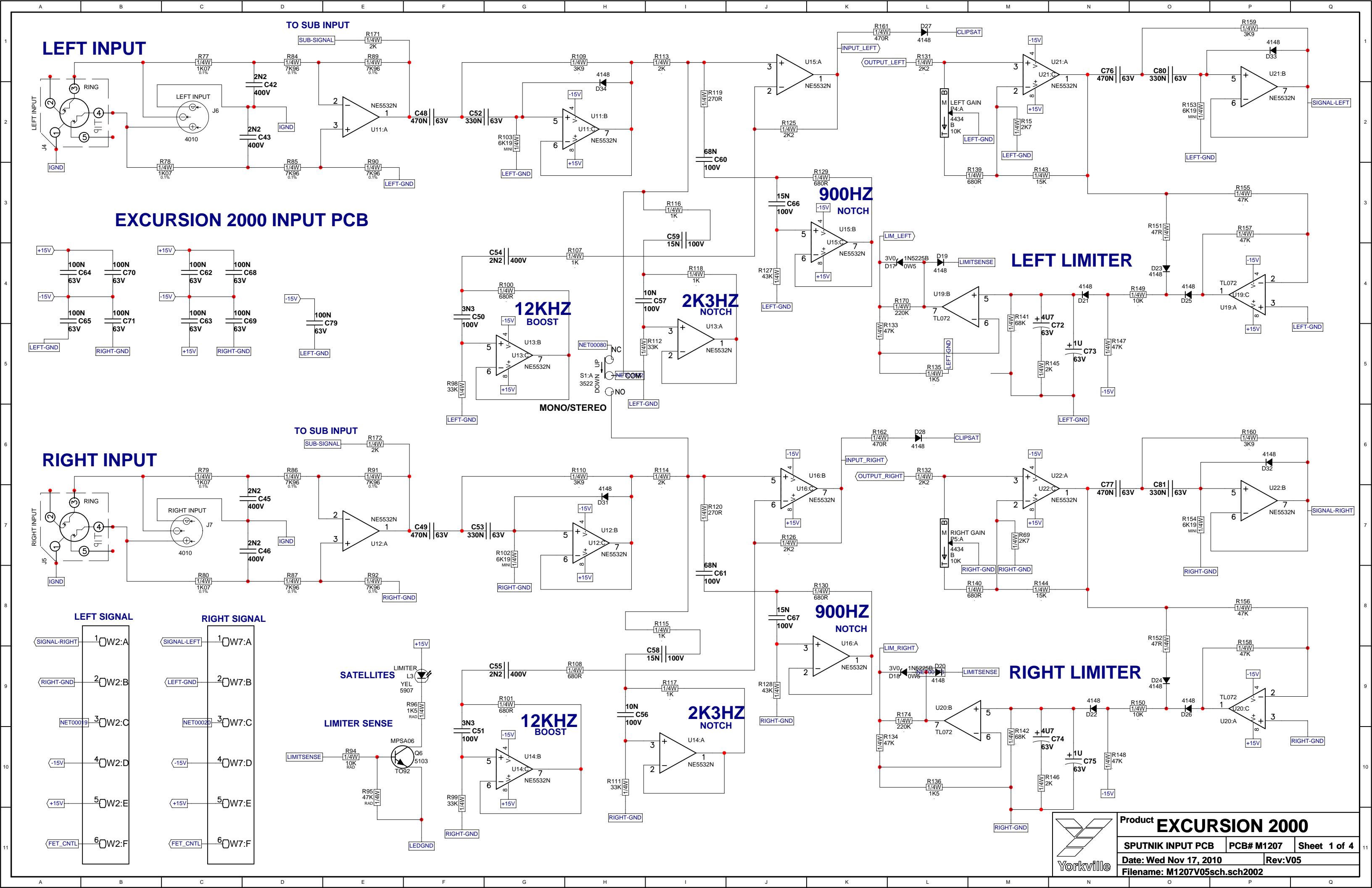


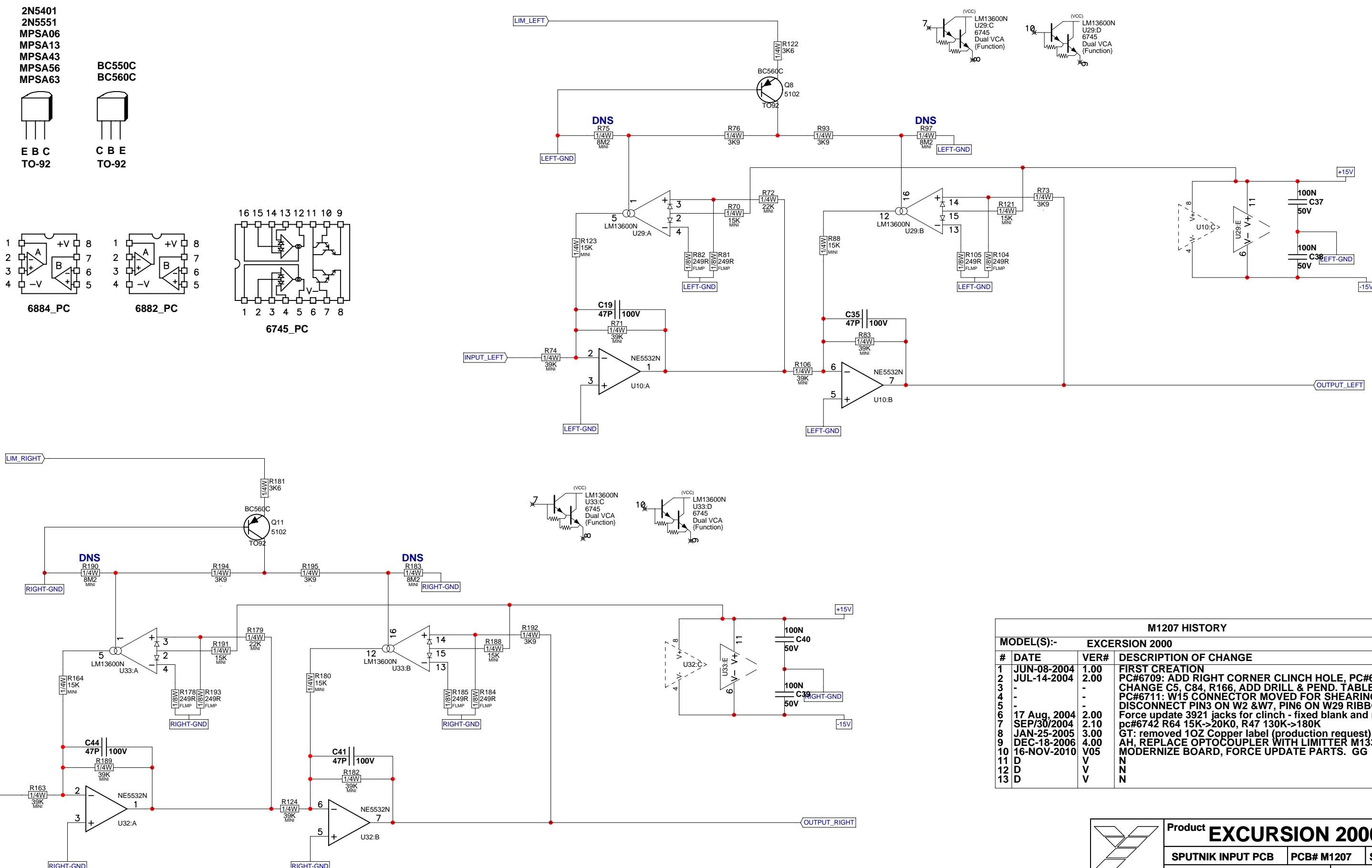
M1206.PCB_DATABASE_HISTORY

MODEL(S):- EXCURSION 2000				M1206 DRILL HISTORY			
#	DATE	VER#	DESCRIPTION OF CHANGE	#	DATE	VER#	DESCRIPTION OF CHANGE
1	MAY-13-2004	1.00	FIRST CREATION	1	D	V	N
2	JUL-15-2004	.	PC#6712: CHANGED COLOUR ATTRIBUTES ON TABS 5 & 11	2	D	V	N
3	AUG-09-2004	.	ADDED TESTPINS	3	D	V	N
4	SEP-02-2004	2.00	Artwork has pads for NODE_R_WPAD and added clinch hole on right side	4	D	V	N
5	.	.		5	D	V	N
6	OCT-12-2004	3.00	CHANGED OUTPUT AND BLACK TABS TO #3538 MOLEX, ON BREAKAWAY CHANGED TABS TO EYELETS AND #3543 RIGHT ANGLE MOLEX	6	D	V	N
7	.	.		M1206 PENDING CHANGES			
8	.	.		MODEL(S):- EXCURSION 2000			
9	OCT-13-2004	.	PC#6737 ZIPPERED OFF 0.2° OF BOARD NEAR HEATSINK, MOVED COMPONENTS ON BREAKAWAY TO AVOID MECH COLLISION ON ASSEMBLED UNIT	#	PC#	PENDING CHANGE	
10	.	.		1	PC	X	
11	.	.		2	PC	X	
12	FEB-1-2005	.	ADDED PRODUCTION NOTE	3	PC	X	
13	JUN-28-2007	.	PC#7227, CHANGE #6954 TO #6966 IRL2910	4	PC	X	
14	DEC-9-2009	.	PC#7767 CHANGE VALUE ON YS#2038 FROM 11R3 TO 11R	5	PC	X	
				6	PC	X	

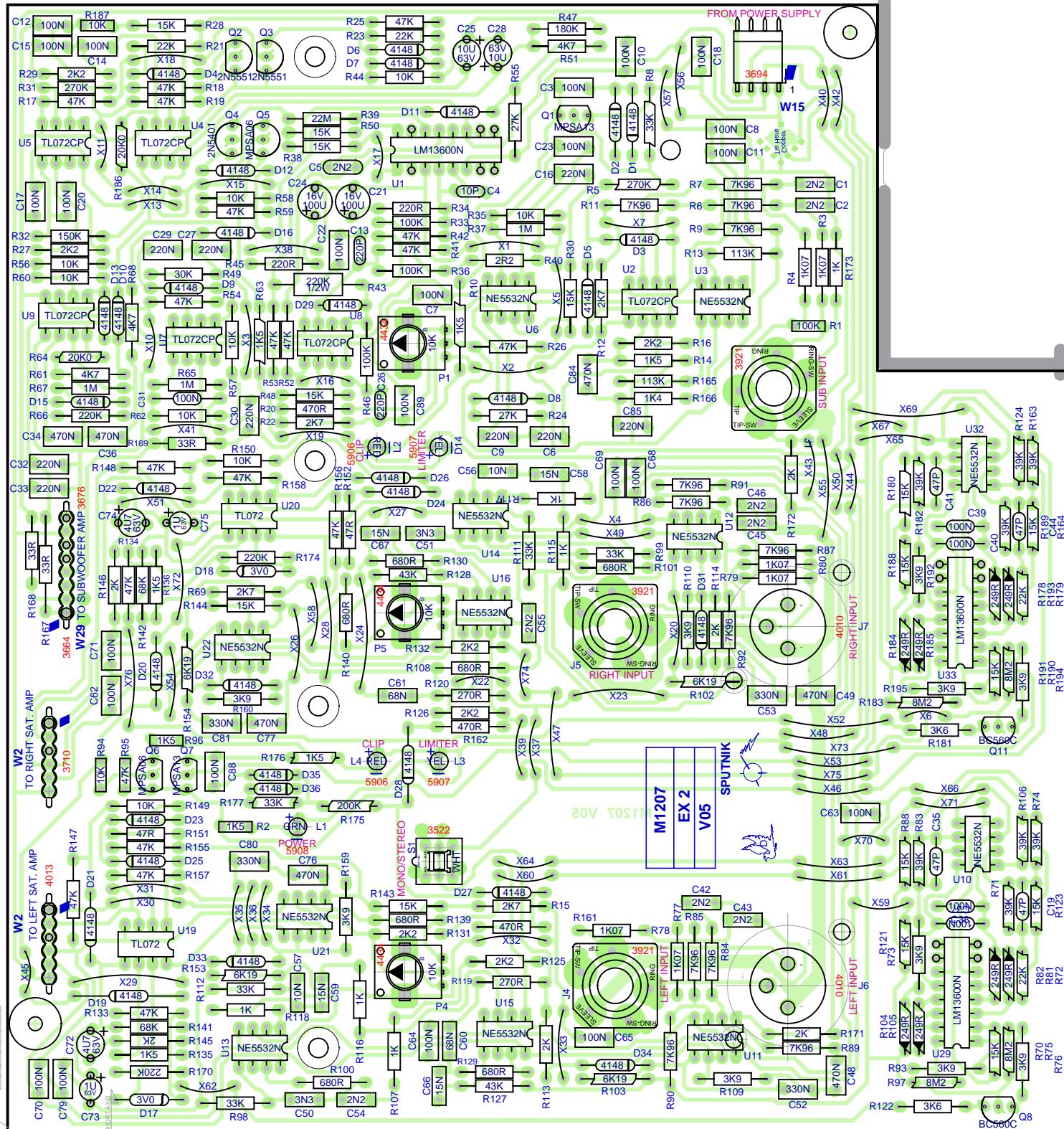
*PLACE IMPLEMENTED CHANGES INTO BOARD HISTORY







BlankSize - 16300x9150



Top Assy M1207V05
Bottom Assy M1207V05

Pcb Mech M1207 V05



SEE LAYOUT DOCUMENTATION



SEE LAYOUT DIAGRAM



M1207 HISTORY			
MODEL(S):- EXCURSION 2000			
#	DATE	VER#	DESCRIPTION OF CHANGE
1	JUN-08-2004	1.00	FIRST CREATION
2	JUL-14-2004	2.00	PC#6709: ADD RIGHT CORNER CLINCH HOLE, PC#6710: CHANGE C5, C84, R166, ADD DRILL & PEND. TABLES
3	-	-	PC#6711: W15 CONNECTOR MOVED FOR SHEARING
4	-	-	DISCONNECT PIN3 ON W2 & W7, PIN6 ON W29 RIBBONS
5	-	-	
6	17 Aug, 2004	2.00	Force update 3921 jacks for clinch - fixed blank and repeat field
7	SEP/30/2004	2.10	pc#6742 R64 15K->20K0, R47 130K->180K
8	JAN-25-2005	3.00	GT: removed 1OZ Copper label (production request)
9	DEC-18-2006	4.00	AH, REPLACE OPTOCOUPLER WITH LIMITTER M1339
10	16-DEC-2010	V05	Modernize board, force update parts. GG
11	D	V	N
12	D	V	N
13	D	V	N

M1207 DRILL HISTORY			
MODEL(S):- EXCURSION 2000			
#	DATE	VER#	DESCRIPTION OF CHANGE
1	D	V	N
2	D	V	N
3	D	V	N
4	D	V	N
5	D	V	N
6	D	V	N

M1207 PENDING CHANGES			
MODEL(S):- EXCURSION 2000			
#	PC#	PENDING CHANGE	
1	PC	X	
2	PC	X	
3	PC	X	
4	PC	X	
5	PC	X	
6	PC	X	

M1207				
MODEL(S):- EXCURSION 2000				
REF	FUNCTION	PART#	KNOB	{NEW}
P4	LEFT GAIN	#4434	9916	N
P5	RIGHT GAIN	#4434	9916	N
P1	SUB GAIN	#4434	9916	N
R	F	P	K	N
R	F	P	K	N
R	F	P	K	N
R	F	P	K	N
R	F	P	K	N
R	F	P	K	N
R	F	P	K	N

M1207 PRODUCTION NOTES

1. AUTO INSERT, DO NOT STUFF R75, R97, R183 AND R190.
2. PCB SA: BREAK OUT BOARD BEFORE TESTING.

2N5401

2N5551

MPSA06

MPSA13

MPSA43

MPSA56

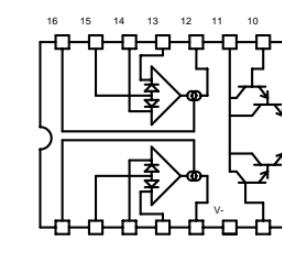
MPSA63

BC550C

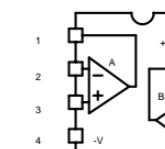
BC560C

E B C

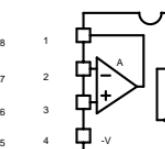
TO-92



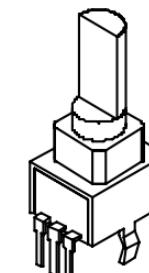
LM13600N



TL072CP

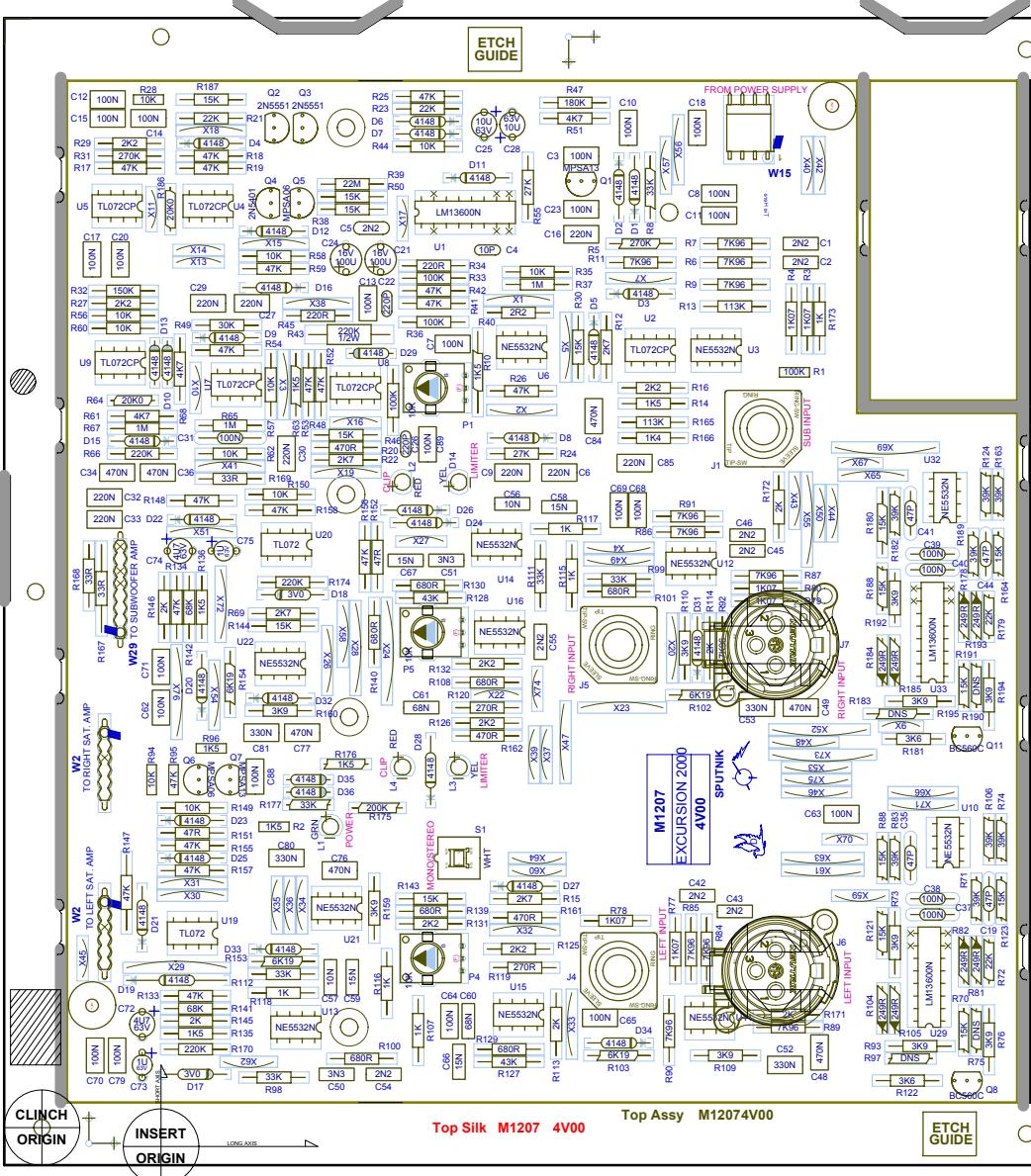


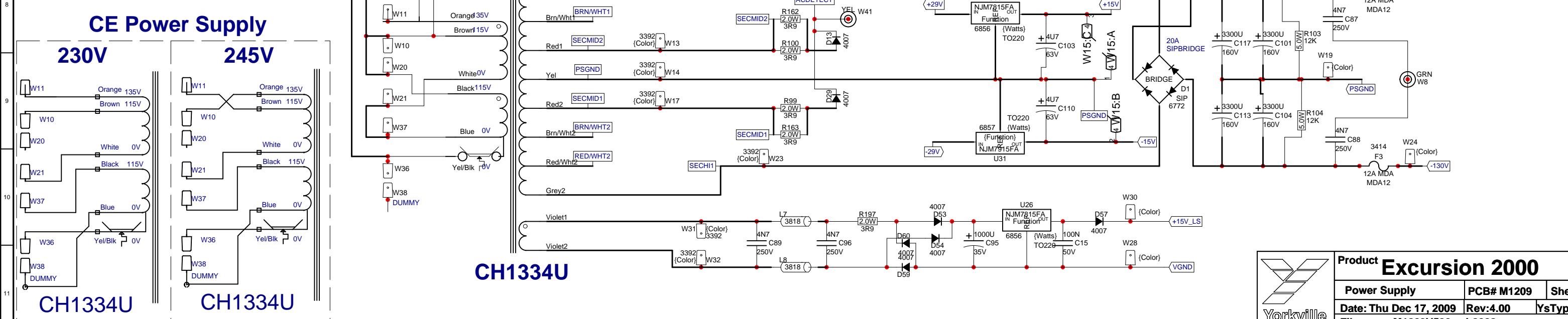
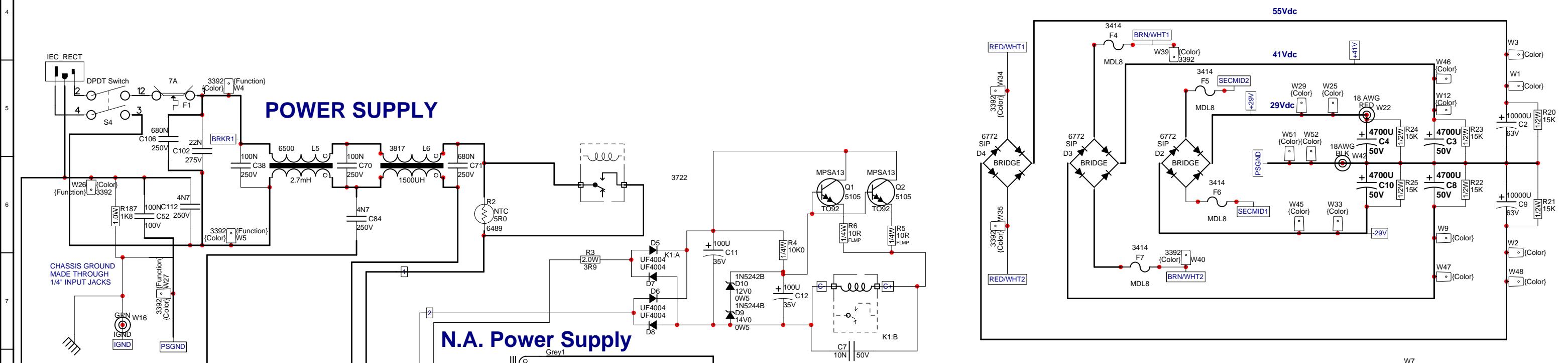
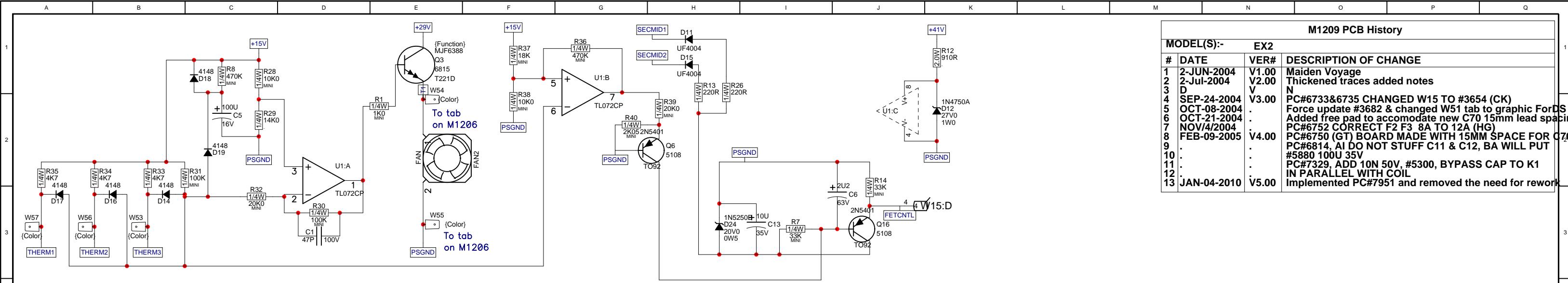
NE5532N



"STYLE_P25"

ETCH GUIDE



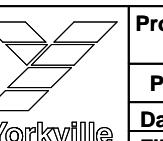


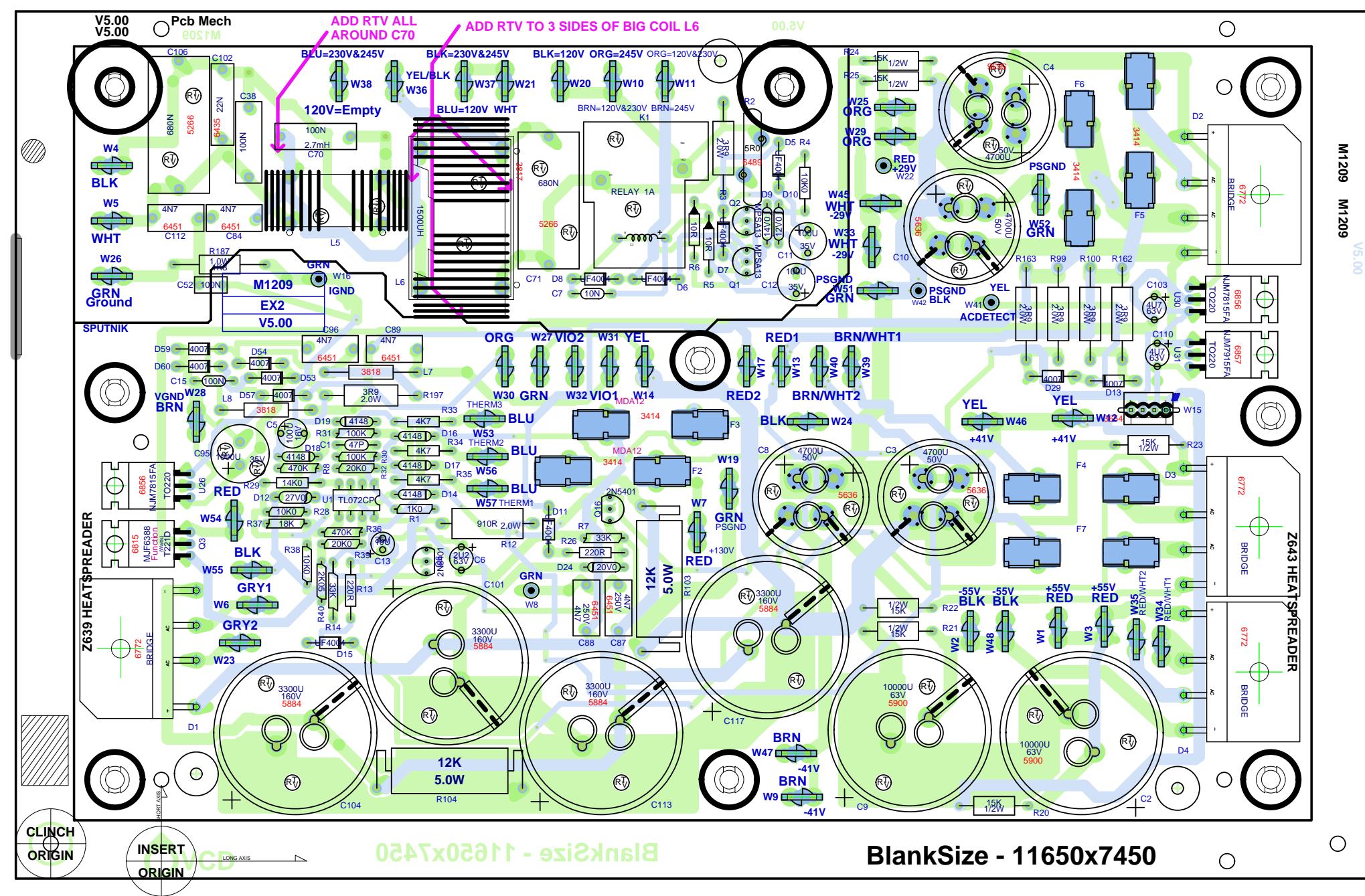
Product Excursion 2000

Power Supply PCB# M1209 Sheet 1 of 1

Date: Thu Dec 17, 2009 Rev:4.00 YsType::

Filename: M1209V500.sch2002







SEE LAYOUT DIAGRAM



PRODUCTION NOTES

- 1. Hardware for mounting devices to heatspreader:
4-40 screw part# 8741, washer part# 3501,
mica grease, kepnut part# 8701**
- 2. ADD RTV TO 3 SIDES OF BIG COIL (LOOK AT L6
TO SEE ARROWS OF WHERE TO APPLY)**
- 3. ADD RTV ALL AROUND C70**
- 4. Auto Insert do not stuff C11 & C12, B.A. will put #5880,100U 35V.**



SEE LAYOUT DIAGRAM



PIN CONFIGURATION

2N5401

2N5551

MPSA06

MPSA13

MPSA43

MPSA56

MPSA63



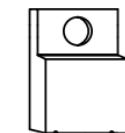
E B C

TO-92

MJF6388

MJF6668

78XX



B C E

TO-221D



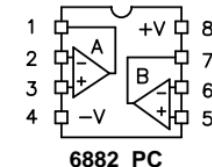
I G O

TO-220



G I O

TO-220



M1209 PCB History

MODEL(S):- EX2

#	DATE	VER#	DESCRIPTION OF CHANGE
1	2-JUN-2004	V1.00	Maiden Voyage
2	2-Jul-2004	V2.00	Thickened traces added notes
3	D	V	Changed R104 and R103 to kink leads.
4	SEP-24-2004	V3.00	PC#6733&6735 CHANGED W15 TO #3654 (CK)
5	OCT-08-2004	.	Force update #3682 & changed W51 tab to graphic For DS
6	OCT-21-2004	.	Added free pad to accomodate new C70 15mm lead spacing
7	NOV/4/2004	.	PC#6752 CORRECT F2 F3 8A TO 12A (HG)
8	FEB-09-2005	V4.00	PC#6750 (GT) FORCE UPDATED C70 #5242 100N
9	.	.	PC#6814, AI DO NOT STUFF C11 & C12, BA WILL PUT
10	.	.	#5880 100U 35V
11	.	.	PC#7329, ADD 10N 50V, #5300, BYPASS CAP TO K1 IN PARALLEL WITH COIL
13	JAN-04-2010	V5.00	Implemented PC#7951 and removed the need for rework

M1209 DRILL HISTORY

MODEL(S):- EX2

#	DATE	VER#	DESCRIPTION OF CHANGE
1	D	V	N
2	D	V	N
3	D	V	N
4	D	V	N
5	D	V	N
6	D	V	N

M1209 PENDING CHANGES

MODEL(S):- EX2

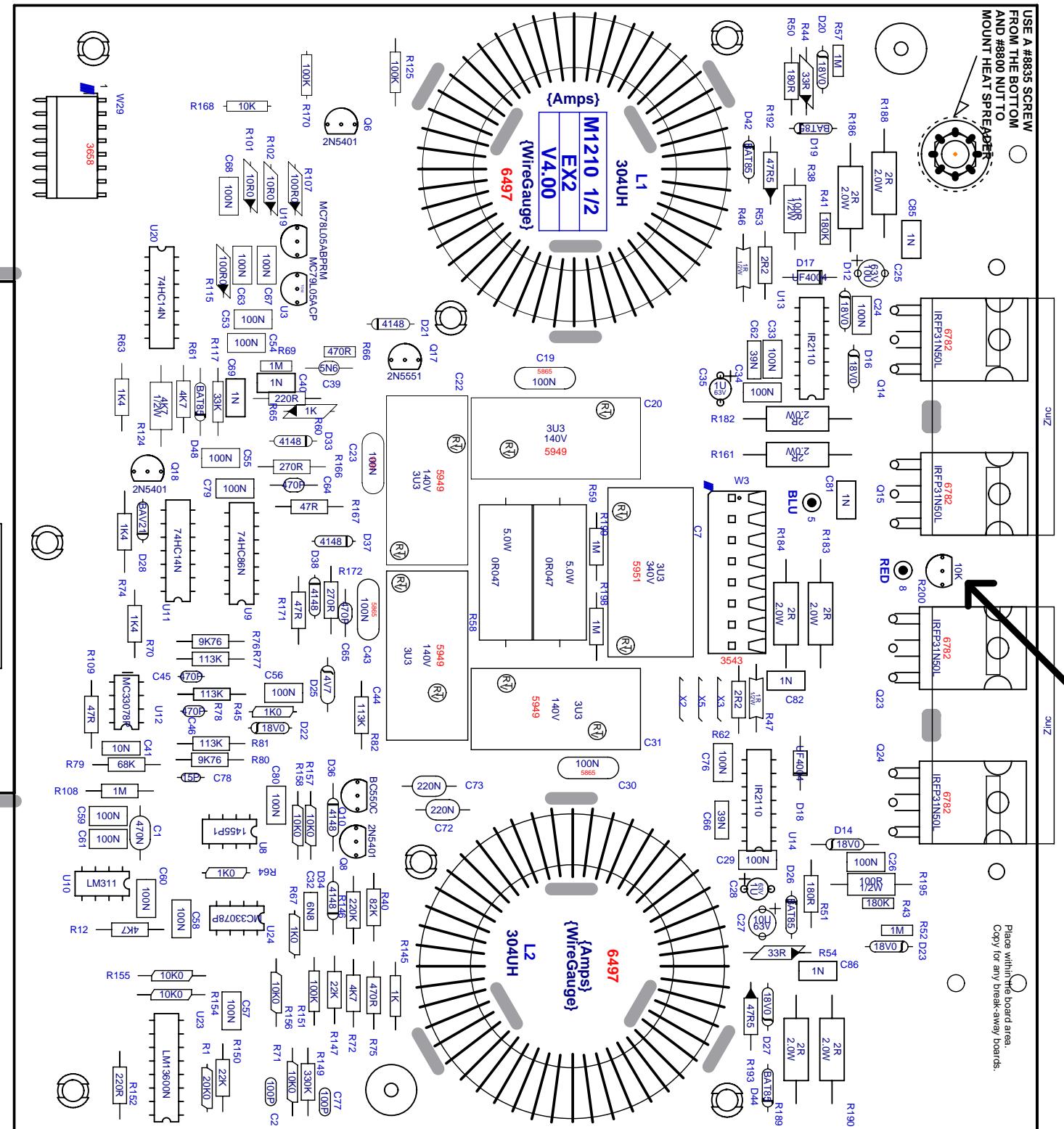
#	PC#	PENDING CHANGE
1	PC	X
2	PC	X
3	PC	X
4	PC	X
5	PC	X
6	PC	X

*PLACE IMPLEMENTED CHANGES INTO BOARD HISTORY

Put thermal compound between R200 and heatspreader on PCB

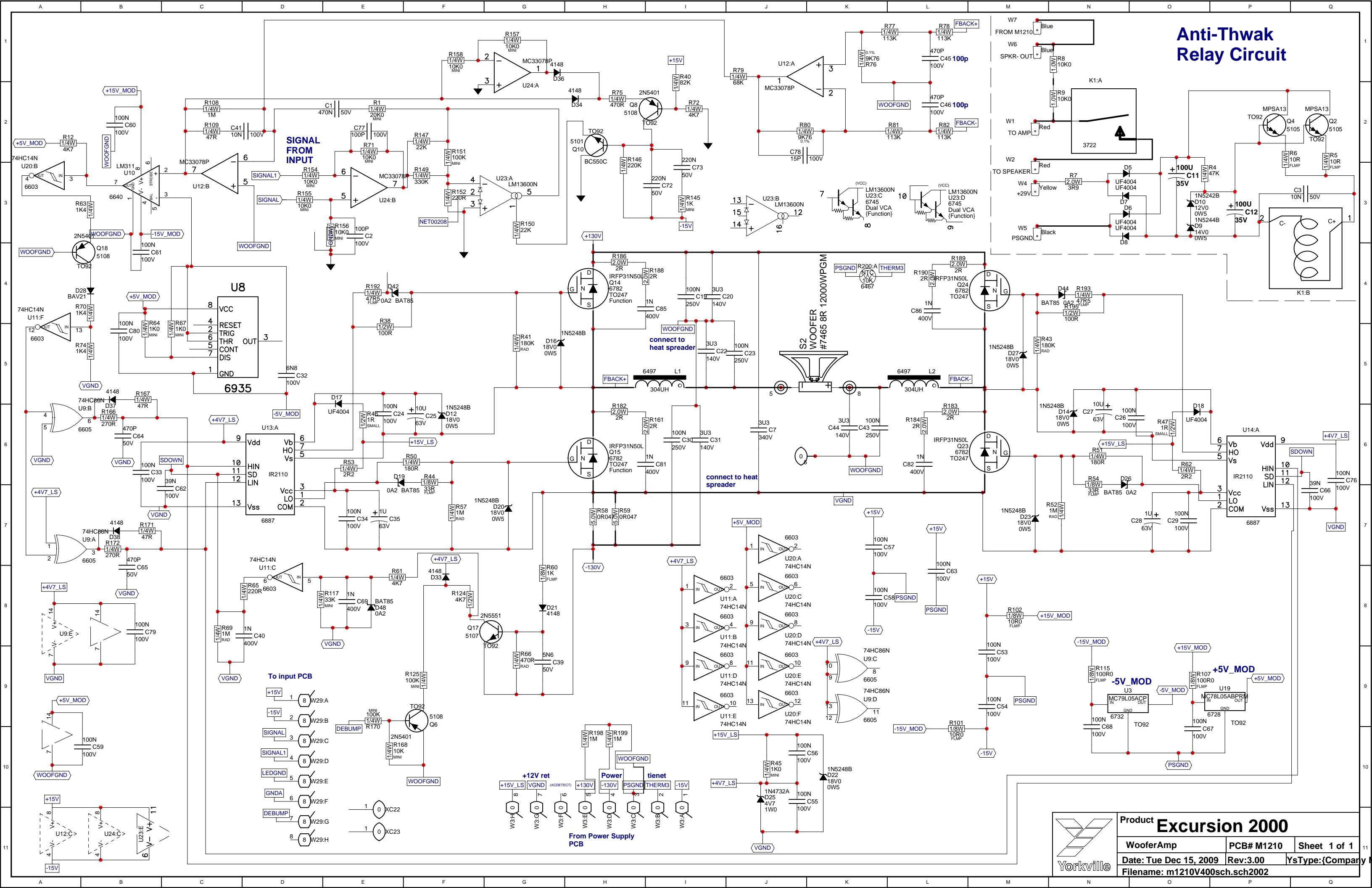
USE A #8835 SCREW FROM THE BOTTOM AND #8800 NUT TO MOUNT HEAT SPREADER

Place within ink board area.
Copy for any break-away boards.



SEE LAYOUT DOCUMENTATION

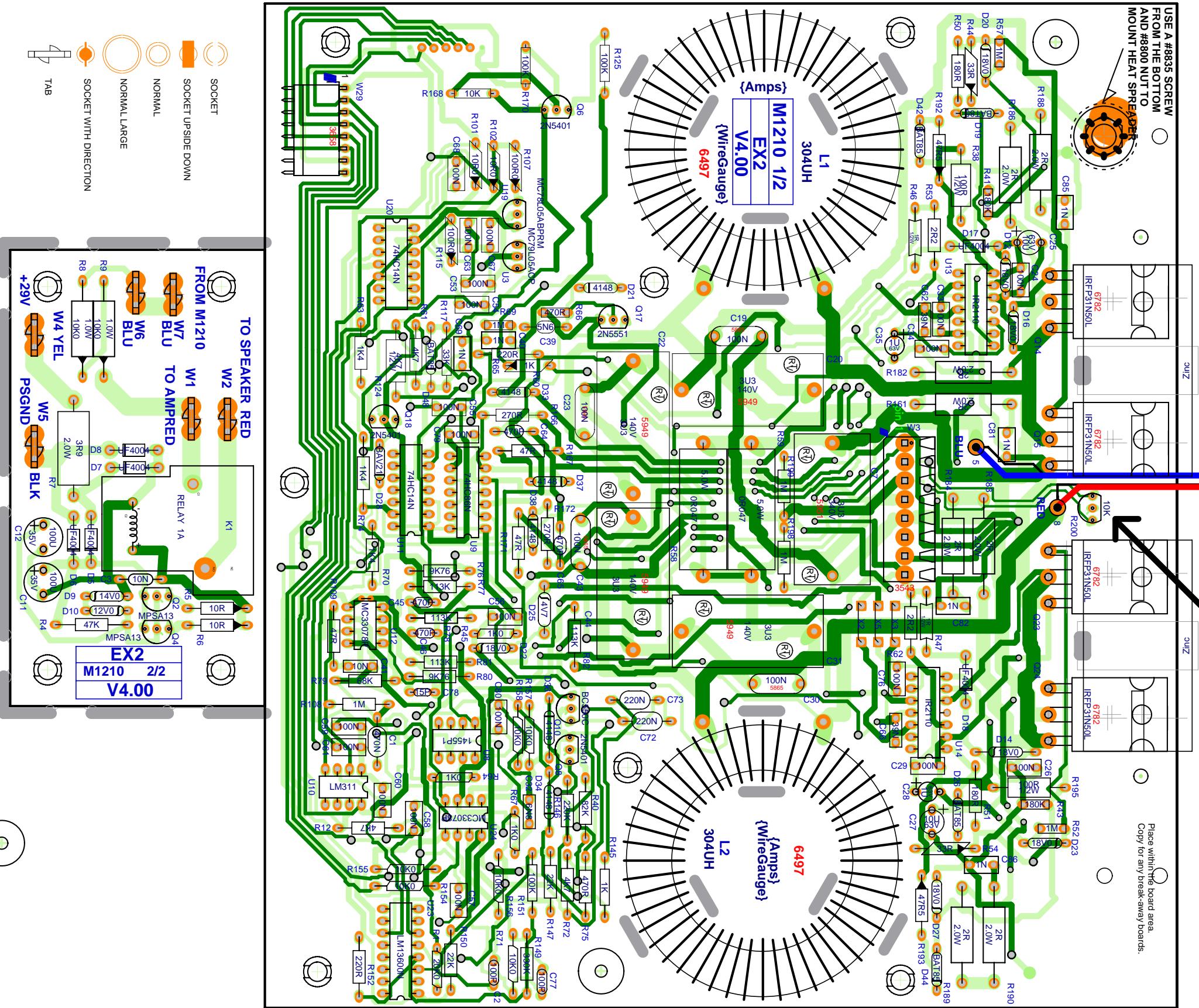
Anti-Thwak Relay Circuit



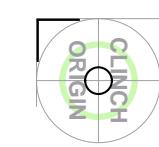
Put thermal compound
between R200 and
heatspreader before putting
slipad on PCB

USE A #8835 SCREW
FROM THE BOTTOM
AND #8800 NUT TO
MOUNT HEAT SPREADER

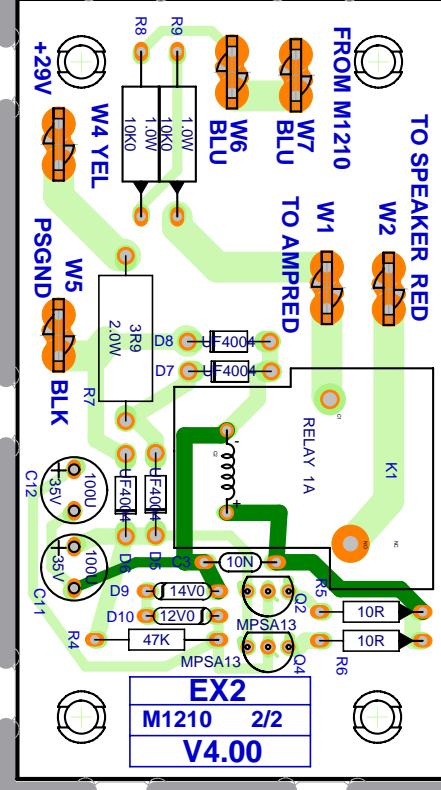
Copy for any break-away boards.



SEE LAYOUT DOCUMENTATION ↴



- SOCKET
- SOCKET UPSIDE DOWN
- NORMAL
- NORMAL LARGE
- SOCKET WITH DIRECTION
- TAB





SEE LAYOUT DIAGRAM



M1210 PRODUCTION NOTES

- 1- Hardware for mounting devices to heatspreader:
8874 screw , 3719 spring , 8581 holder , 3895 silpad , 8787 nut
- 2- Put thermal compound between R200 and heatspreader before
putting silpad on PCB
- 3- U13 and U14 have had pin 4 modified for more clearance (R060.040)



SEE LAYOUT DIAGRAM



PIN CONFIGURATION

2N5401

2N5551

MPSA06

MPSA13

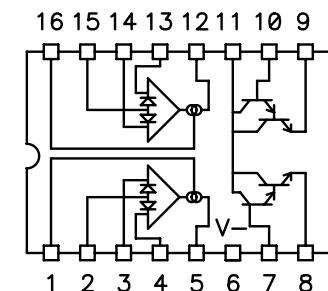
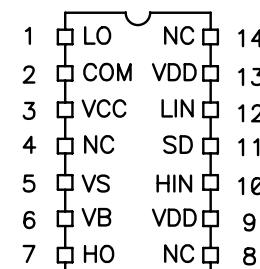
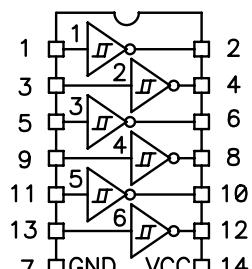
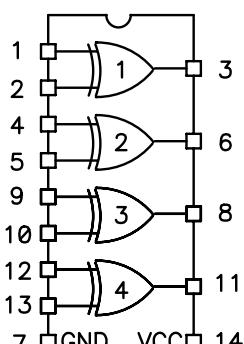
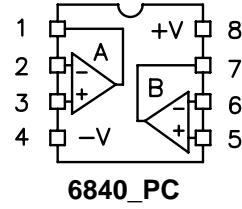
MPSA43

MPSA56

MPSA63

78XX

79XX

BC550C
BC560CE B C
TO-92C B E
TO-92I G O
TO-220G I O
TO-220

M1210.PCB_DATABASE_HISTORY

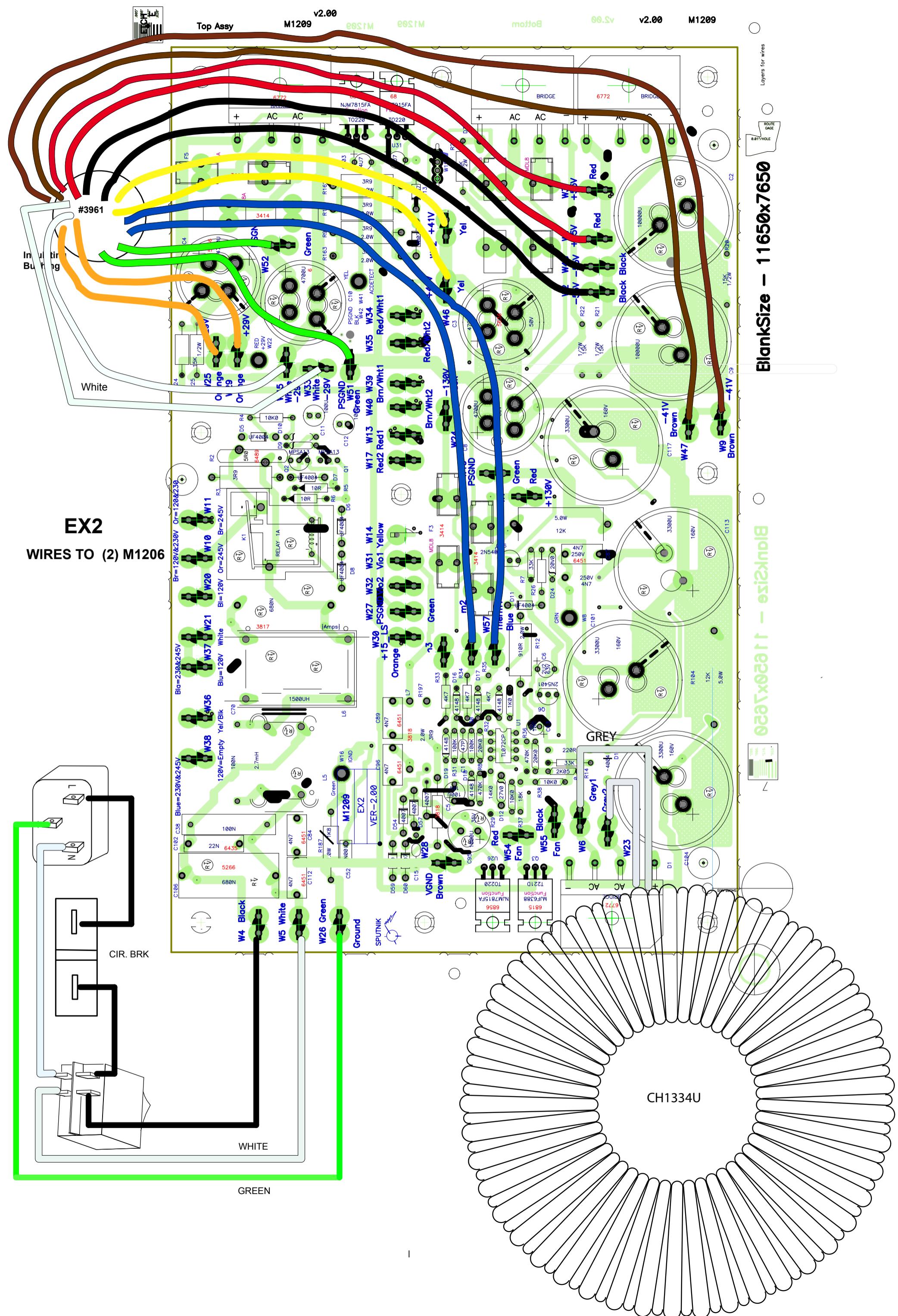
MODEL(S):- EX2

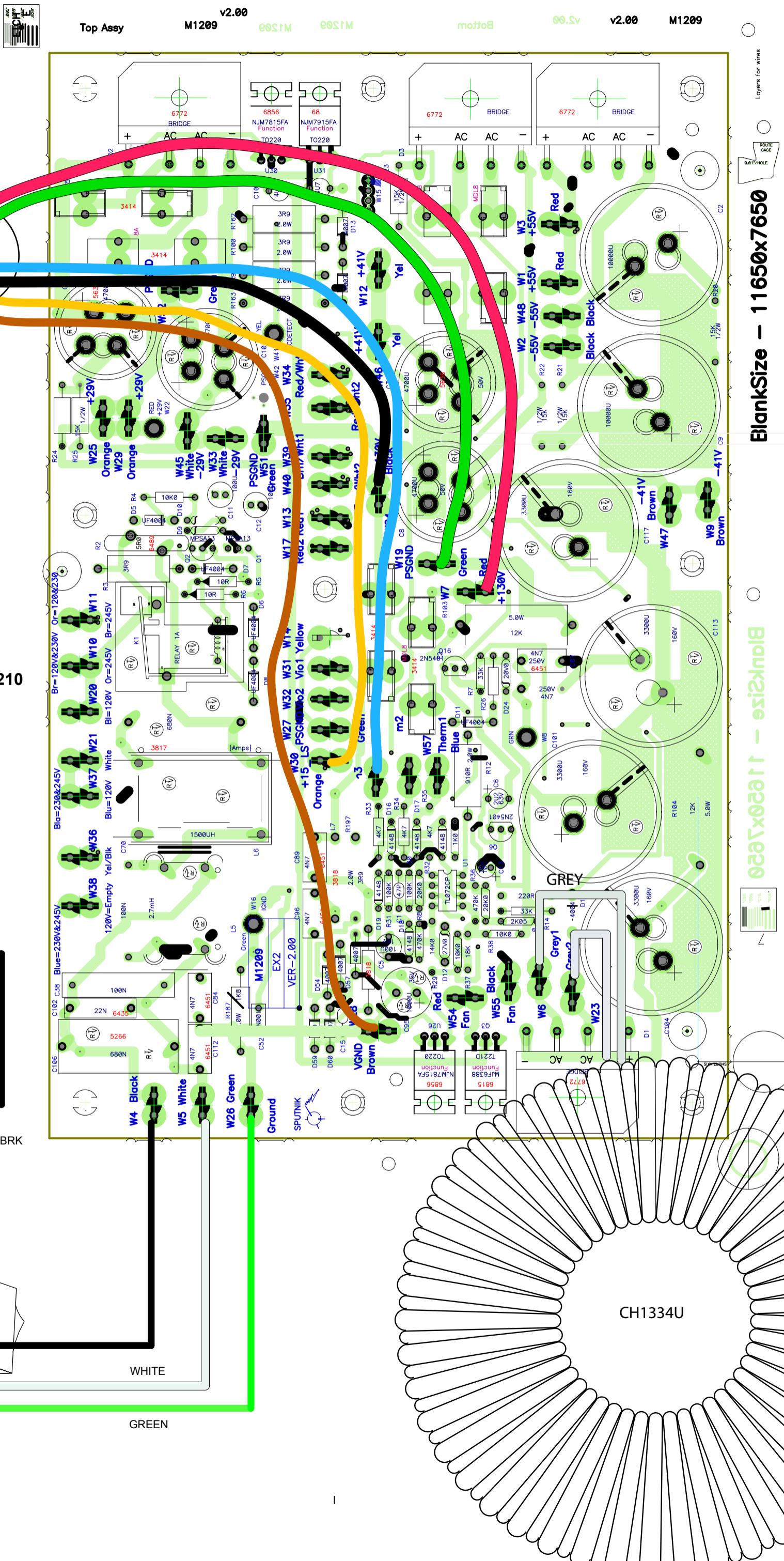
#	DATE	VER#	DESCRIPTION OF CHANGE
1	28-MAY-2004	V1.00	PC# 6714 Removed R2, R3, C3
2	July 24-2004	V2.00	Fixed open tracks
3	Sep-22-2004	.	PC#6731-C81,C82,C85,C86 REPLACE TO #5213
4	.	.	GREY COLOUR
5	SEP-29-2004	V3.00	REPLACED C40 AND C69 WITH #5213 (CK)
6	.	.	PC#6736:REPLACED C28&C35 5254 WITH 5255 (GT)
7	.	.	PC#6734:W29 CHANGED TO 3658 & MOVED LOWER (CK)
8	.	.	Moved vias from under resistors.
9	AUG-25-2005	.	PC#6931:SPEAKER #18/063Y8M->#7459
10	.	.	PC#6814, AI DO NOT STUFF C11 & C12, BA WILL PUT
11	.	.	#5880 100U 35V
12	.	.	PC#7329, ADD 10N 50V, #5300, BYPASS CAP TO K1
13	.	.	IN PARALLEL WITH COIL
1	11-DEC-09	V4.00	PC#7329, PC#6814, score, force updated parts
2	D	V	N
3	D	V	N
4	D	V	N
5	D	V	N
6	D	V	N
7	D	V	N
8	D	V	N
9	D	V	N
10	D	V	N
11	D	V	N
12	D	V	N
13	D	V	N

M1210 DRILL HISTORY

MODEL(S):- EX2

#	DATE	VER#	DESCRIPTION OF CHANGE
1	D	V	N
2	D	V	N
3	D	V	N
4	D	V	N
5	D	V	N
6	D	V	N





EX2

230V CE

PRIMARY WIRING

ORN

BRN

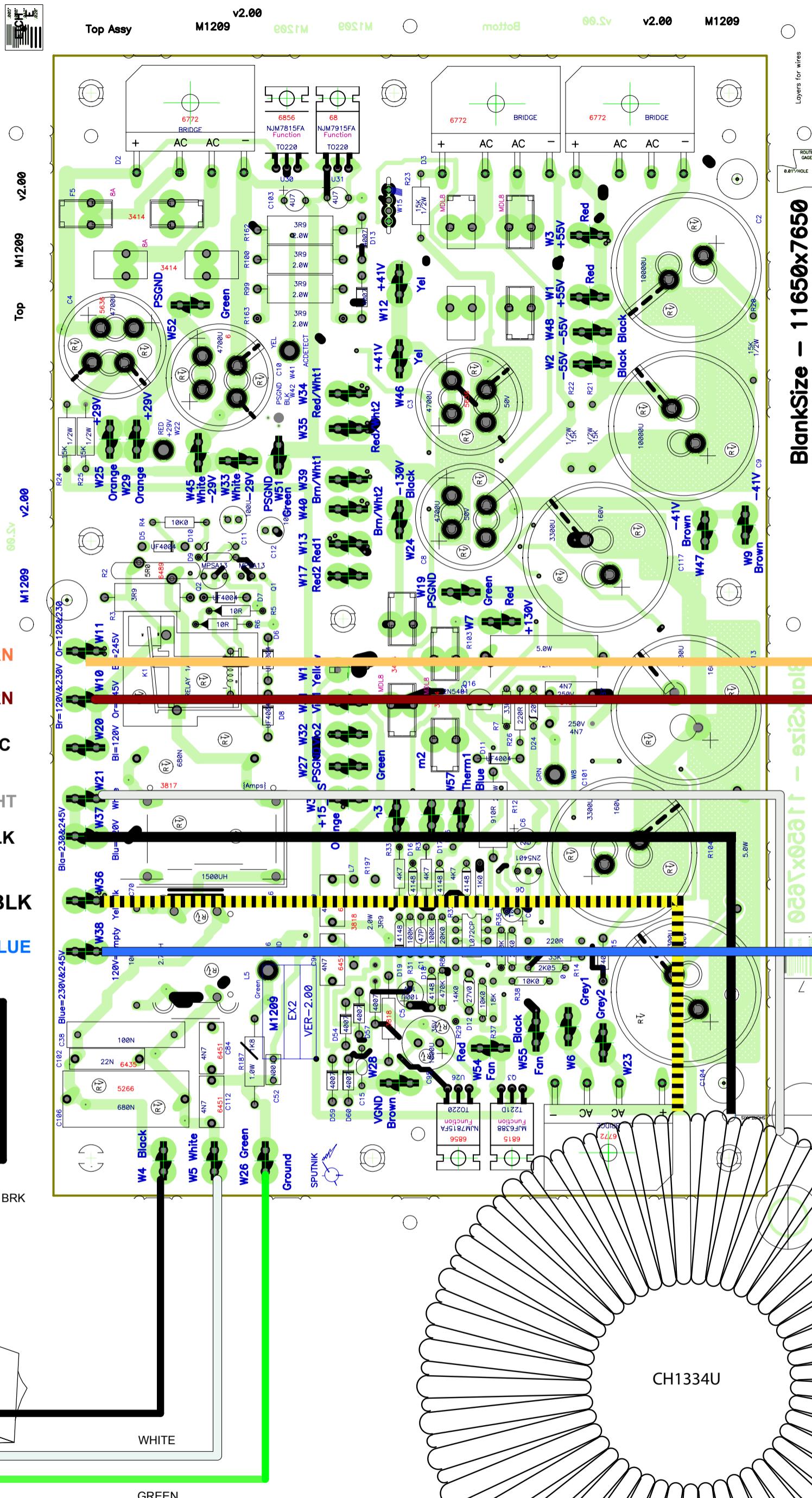
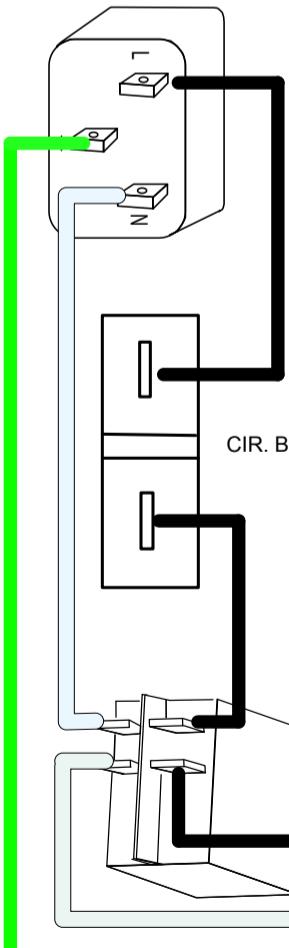
N/C

WHT

BLK

YEL/BLK

BLUE



EX2

245VAC CE

PRIMARY WIRING

BRN

ORN

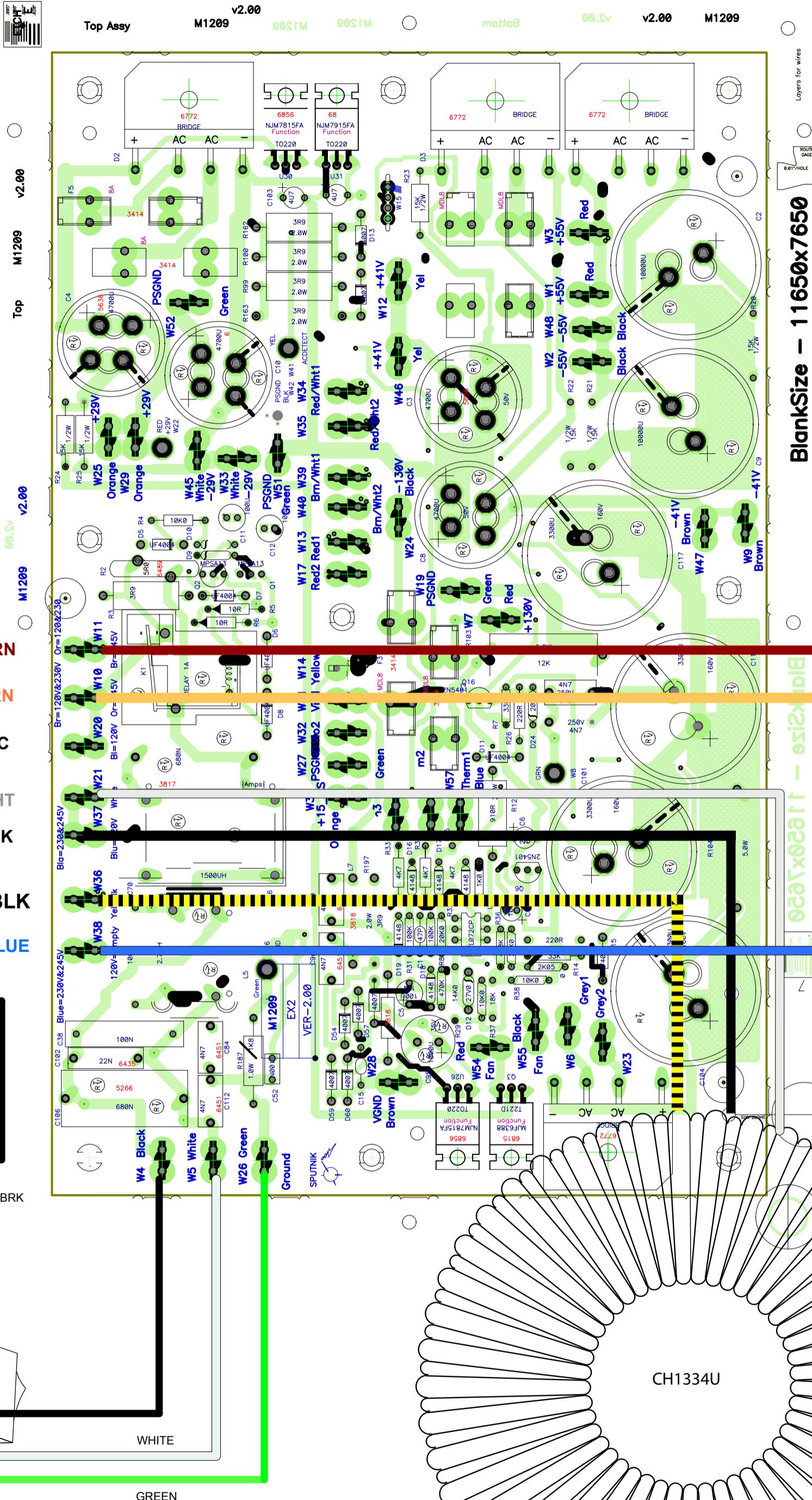
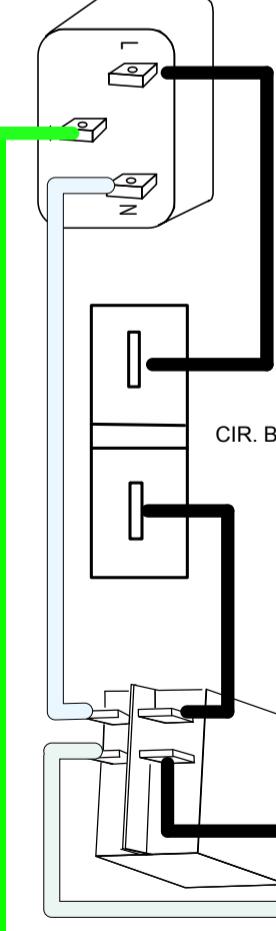
N/C

WHT

BLK

YEL/BLK

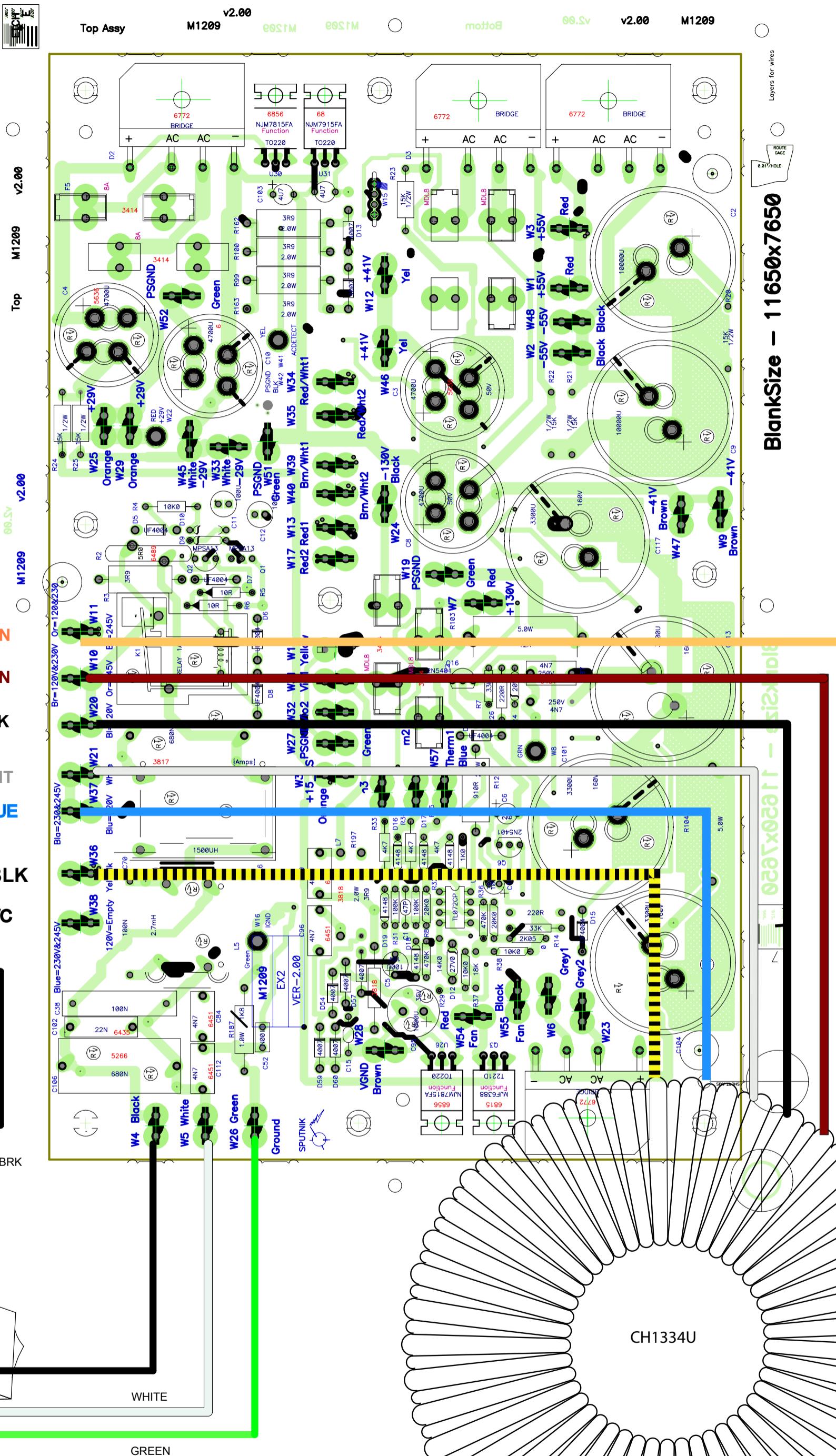
BLUE



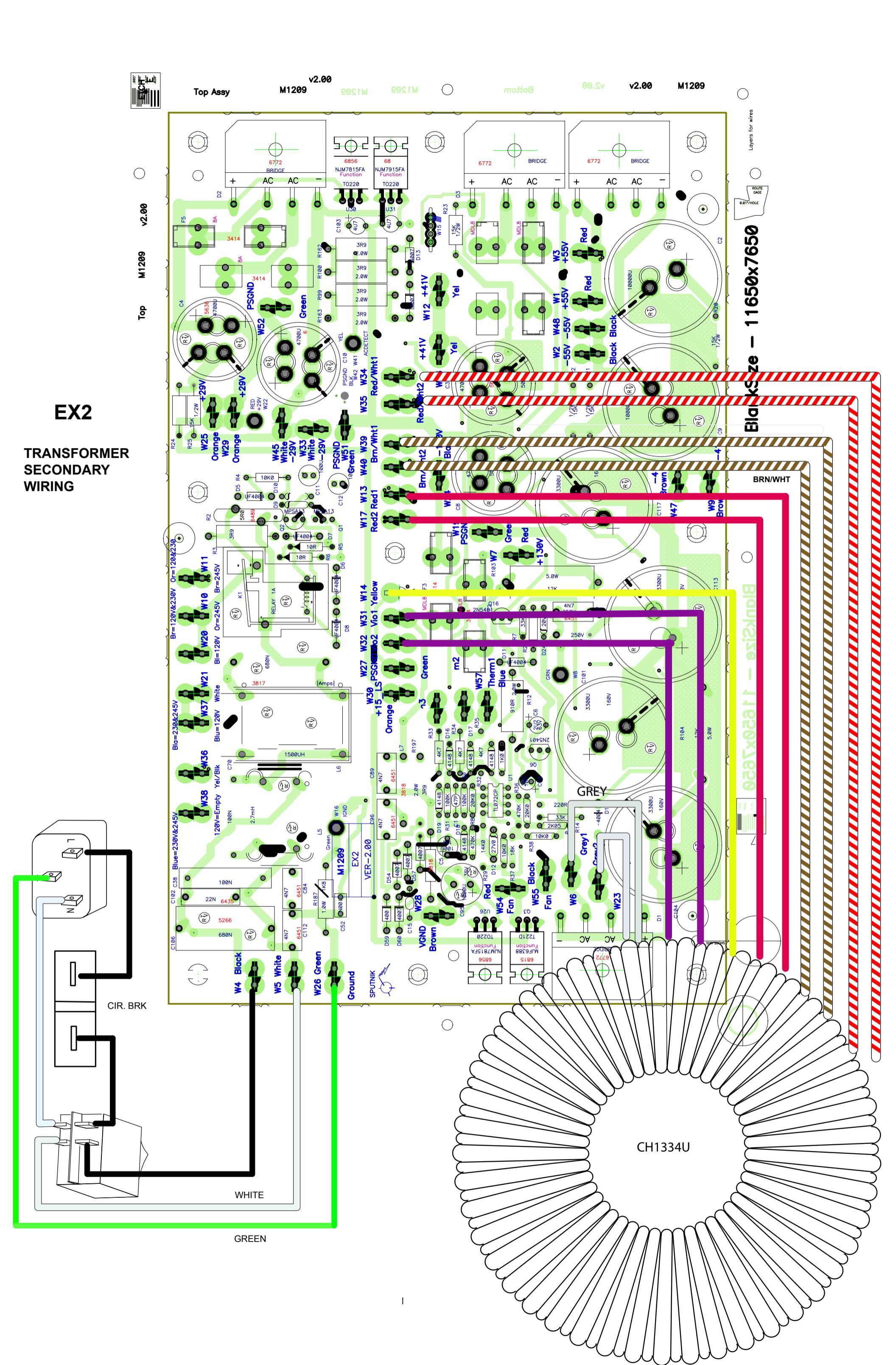
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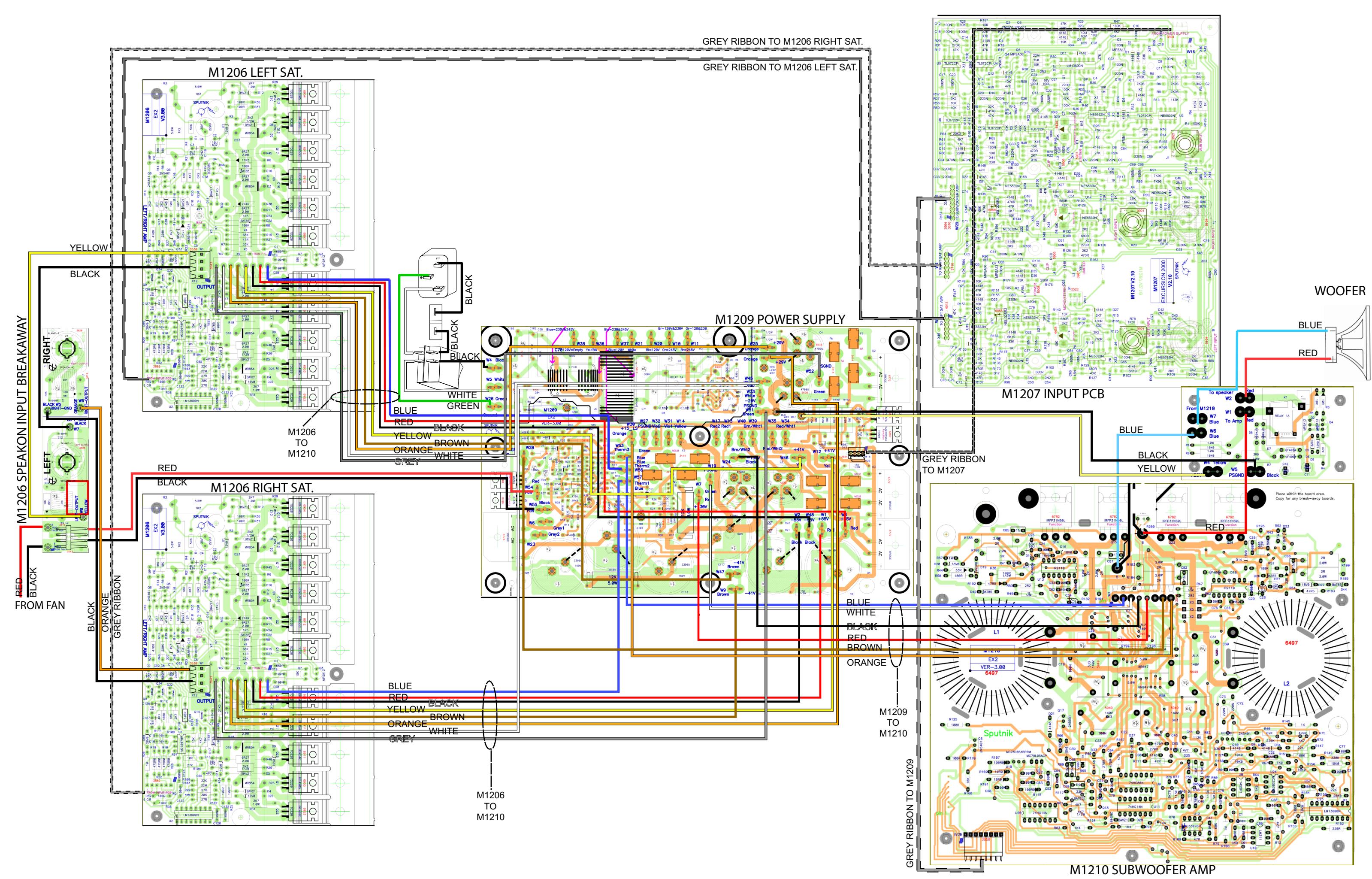
Layers for wires
ROUTE GAGE 0.015" HOLE

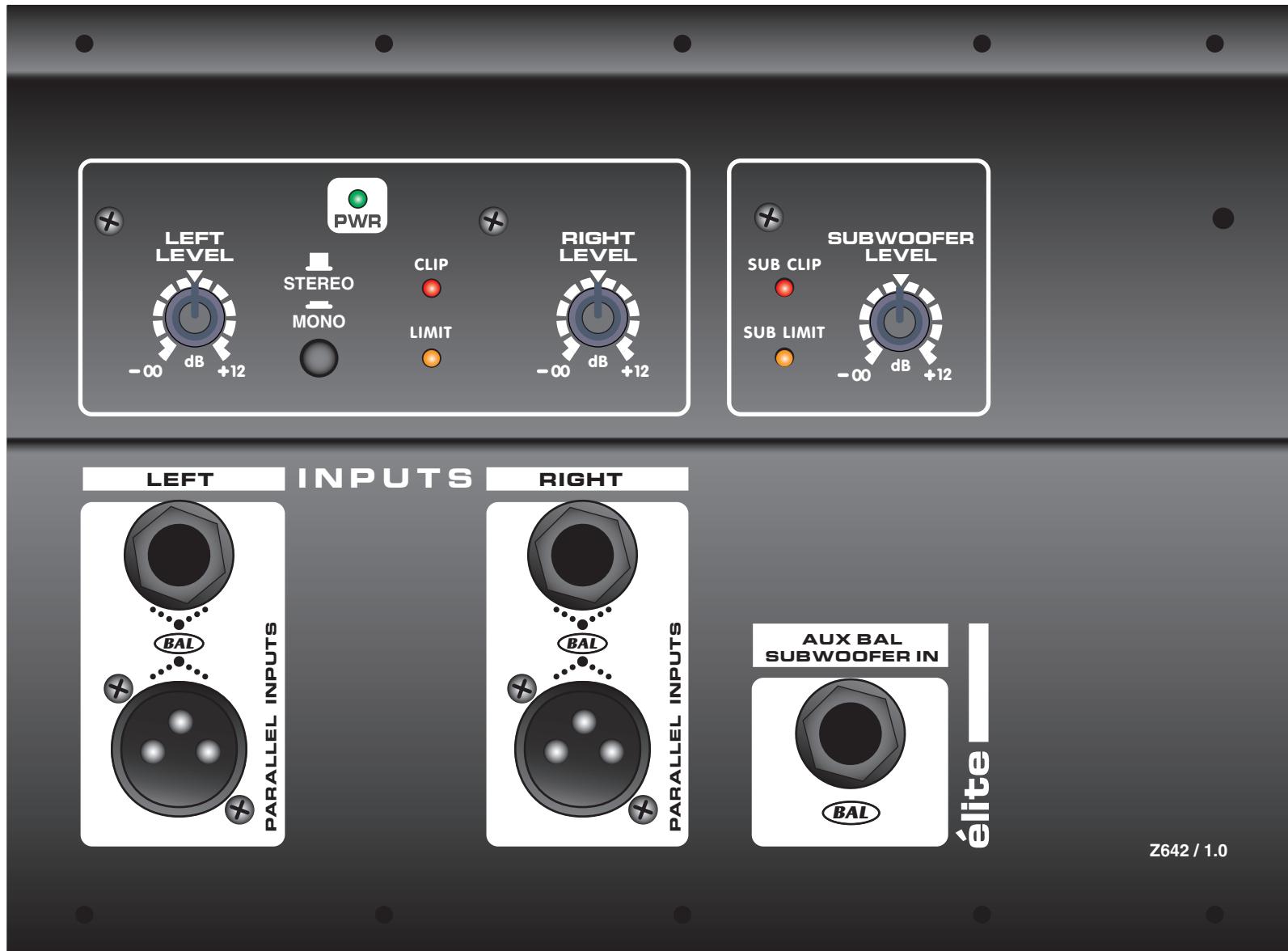
CH1334U



CH1334U







TOP FOLDED VIEW



YS#9916 Gray Knob (qty: 3)